

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES S. DINH

Appeal No. 2000-0453
Application No. 09/083,901

ON BRIEF

Before FLEMING, DIXON, and BLANKENSHIP, **Administrative Patent Judges**.
DIXON, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-18, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

Appellant's invention relates to a DC-to-DC converter providing high current and low voltage. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A DC-to-DC converter comprising:

a synchronous rectifier converter, said synchronous rectifier converter comprising a buck converter;

the transformer of said synchronous rectifier converter employing less than five windings on the secondary of the transformer.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Butcher et al. (Butcher)	4,399,499	Aug. 16, 1983
Gegner	5,477,131	Dec. 19, 1995

Claims 1-7 stand rejected under 35 U.S.C. § 103 as being clearly anticipated by Gegner. Claims 8-18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Gegner in view of Butcher.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellant regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 14, mailed Oct. 26, 1999) for the examiner's reasoning in support of the rejections, and to appellant's brief (Paper No. 13, filed Oct. 12, 1999) for appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we make the determinations which follow.

35 USC § 102

Appellant argues that Gegner does not teach all of the elements and limitations and that the examiner has not established a *prima facie* case of anticipation. Appellant argues that Gegner does not teach the use of a transformer of a synchronous rectifier employing less than five windings on the secondary of the transformer. (See brief at page 8.) We agree with appellant that Gegner is silent as to the number of turns on the secondary. The examiner maintains that Gegner discloses the number of turns on “a secondary winding N_x ” in Figure 5 (Gegner at column 6) and that the number of turns would be merely a design choice. (See answer at page 5.) We disagree with the examiner. Additionally, the examiner maintains that appellant's use of “windings” is directed to the windings of the coils in the transformer and that a transformer would have at least two windings (primary and secondary) and that these two are less than five. We find the examiner interpretation of the term “winding” to be too narrow and not reasonable in light of appellant's disclosed invention. The examiner maintains that Gegner teaches a single winding N_x at column 9, line 40, but clearly the examiner has

misinterpreted the teachings of Gegner. Gegner clearly discloses that the value N_x is the turns ratio of the primary and the secondary. (See Gegner at column 7, line 51.) From our understanding of Gegner, the value of N_x would refer to the same turns ratio in both Figures 5 and 6 rather than to the number of turns on the secondary for Figure 5 and a turns ratio for Figure 6. Therefore, the examiner has not shown how or where Gegner teaches all of the limitations of independent claim 1 and has not established a ***prima facie*** case of anticipation. Therefore, we will not sustain the rejection of claims 1-7 under 35 USC § 102.

35 USC § 103

With respect to dependent claims 8 and 9 and independent claim 10, the examiner relies upon the teachings of Butcher to teach the use of a microprocessor for a synchronous rectifier. (See answer at page 4.) The examiner maintains that it would have been obvious to one of ordinary skill in the art to provide the required load current and voltage and equated this to the determination of an optimum value. We disagree with the examiner treatment of the limitation in independent claim 10. Essentially, the examiner has added another reference and not relied upon the teachings therein to teach or suggest the claimed invention. From our understanding of the teachings of Butcher, Butcher does not remedy the deficiencies the teachings of Gegner with respect to dependent claims 8 and 9, and we will not sustain the rejection of claims 8 and 9.

With respect to independent claim 10, the examiner has not shown that individual references or the combination of references teaches or fairly suggests the claimed invention. The examiner relies on routine level of skill in the art to determine the optimum values for operation. We disagree with the examiner characterization of the invention and lack of any evidence or convincing line of reasoning to support the examiner's position. Therefore, we agree with appellant that the examiner has not established a ***prima facie*** case of obviousness of the claimed invention, and we will not sustain the rejection of independent claim 10 and its dependent claims 11-14.

With respect to independent claim 15, as discussed above the examiner has not shown that the prior art to Gegner and Butcher teach or suggest the use of less than five windings on the secondary and similarly, the examiner has not shown that they teach or suggest the use of a single winding on the secondary. Therefore, we will not sustain the rejection of independent claim 15 and its dependent claims 16-18.

Appeal No. 2000-0453
Application No. 09/083,901

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-7 under 35 U.S.C. § 102 is reversed, and the decision of the examiner to reject claims 8-18 under 35 U.S.C. § 103 is reversed.

REVERSED

MICHAEL R. FLEMING
Administrative Patent Judge

JOSEPH L. DIXON
Administrative Patent Judge

HOWARD B. BLANKENSHIP
Administrative Patent Judge

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Appeal No. 2000-0453
Application No. 09/083,901

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